

Customer No.: 31561
Application No.: 10/707,628
Docket No.: 11377-US-PA

REMARKS

Present Status of the Application

The Office Action rejected all presently-pending claims 1-3. Specifically, the Office Action rejected claims 1-3 under 35 U.S.C. 102(b), as being anticipated by Liu et al. (U.S. 5,105,215). The Office Action also rejected claims 1-2 under 35 U.S.C. 102(b), as being anticipated by Lin et al. (U.S. 6,121,626). Applicants have amended claims 1 and 2. After entry of the foregoing amendments, claims 1 and 2 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Discussion of Office Action Rejections

The Office Action rejected all presently-pending claims 1-3. Specifically, the Office Action rejected claims 1-3 under 35 U.S.C. 102(b), as being anticipated by Liu et al. (U.S. 5,105,215). The Office Action also rejected claims 1-2 under 35 U.S.C. 102(b), as being anticipated by Lin et al. (U.S. 6,121,626). Applicants respectfully traverse the rejections for at least the reasons set forth below.

Independent claim 1 recites the features as follows:

1. A dynamic mask module adapted to transfer a mask pattern to a photo-resist on a substrate, the dynamic mask module comprising:
a microcomputer system;

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a digital light processing optical projector disposed over the substrate and electrically connected to the microcomputer system, wherein the microcomputer system transmits an image signal of the mask pattern to the digital light processing optical projector for generating pluralities of opaque areas and transparent areas and outputting the mask pattern; and

a light source disposed over the digital light processing optical projector, light of the light source projecting on the opaque areas and transparent areas for transferring the mask pattern to the photo-resist.

(emphasis added).

Claim 2 also recites the similar features.

Both Liu et al.(US 6,121,626) and Lin et al.(US 5,105,215) fail to disclose the digital light processing optical projector claimed in the claim 1 and claim 2. The following table is a detail comparison between the claim 1 and cited references. It should be noted that the digital light processing optical projector is a kind of reflective type light-valve. Generally, the transmissive type LCD is utilized to receive a visible light emitted from a visible light source so as to generate a pattern. Most photolithographic processes use the UV light source to expose the photoresist layer. However, the transmissive type LCD is not suitable for cooperating with an UV light source because characteristics of the liquid crystal layer in the transmissive LCD may be deteriorated. In Claim 1 and 2 of the present invention, a digital light processing optical projector is used to generate a pattern, the digital light processing optical projector can process and reflect the UV light emitted from the UV light source without being deteriorated.

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Therefore, in the UV exposure process, the digital light processing optical projector is more useful than the transmissive type LCD.

Claim 1	US 6,121,626	US 5,105,215
a microcomputer system	An electronic control system 50 (See fig. 1)	CPU 26 (See FIG. 1A)
a <u>digital light processing optical projector</u> disposed over the substrate and electrically connected to the microcomputer system	A high resolution, matrix addressable liquid crystal exposure element or shutter 30, which blocks or transmits light...(See Col. 4, lines 21-27 and fig. 1)	A transmissive universal dynamic mask TM (See Col. 2, lines 58-61 and FIG. 1A)
a light source	Light source 12 (See fig. 1)	Light beam LB (See FIG. 1A)

For at least the foregoing reasons, Applicant respectfully submits that claim 1-2 patently define over the prior art references, and should be allowed.

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CONCLUSION

For at least the foregoing reasons, it is believed that the pending claim 1 and claim 2 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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